

## **1.0 Introduction**

On behalf of Plains Marketing L.P., Yorktown (Plains), Opal Group, Inc. (Opal) prepared this Work Plan to describe the scope of work to complete the interim site-wide groundwater remedy at the Plains Terminal in Yorktown, Virginia (Facility). Both the interim and final site-wide groundwater remedies for the Facility were presented to the United States Environmental Protection Agency (USEPA) in the Final Site-wide Groundwater Reassessment Report (Opal, 2013), dated December 2, 2013. The interim site-wide groundwater remedy proposed for the Facility consists of:

- ongoing recovery of Non Aqueous Phase Liquids (NAPL);
- additional data collection of semi-annual groundwater samples from a network of selected monitoring wells for a period of two years; and,
- additional investigation and source removal of hot spot areas.

The final site-wide groundwater remedy proposed for the Facility is contingent upon the results of the interim remedy and consists of a long term, monitored natural attenuation (MNA) process to confirm that concentrations of dissolved contaminants in groundwater are reducing and not migrating off site.

### **1.1 Work Plan Objective**

The objective of this Work Plan is to:

- Provide the scope of work for conducting the interim site-wide groundwater remedy at the Facility as proposed in the Final Report Site-Wide Groundwater Reassessment (Opal, 2013).
- Provide a reference guide of procedures for conducting the field activities to complete the interim site-wide groundwater remedy, including methods for soil sampling, groundwater sampling, laboratory analyses, and general field procedures (decontamination, sample shipping, instrument calibration, etc.). Related documents to be used in conjunction with this Work Plan, as applicable include:
  1. Amended Site-Specific Health and Safety Plan (HASP);
  2. Standard Operating Procedures (SOPs) – Corrective Measures Implementation, Plains Marketing Yorktown;
  3. Revised Quality Assurance Project Plan (QAPP)
  4. Phase II Construction Specifications – Phase II Corrective Measures Implementation.

The above listed documents are provided as electronic attachments with this Work Plan.

## 1.2 Project Background

Figure 1 – “Facility Site Plan” shows the Facility location and surrounding geographic features at 2201 Goodwin Neck Road in Yorktown, York County, Virginia. The Facility began operations in 1956 and operated as a refinery under various owners until 2010. In December 2011, ownership of the Facility was transferred from Western Refining, Inc. to Plains, which intends to operate the Facility solely as a rail transport, oil storage and distribution terminal.

The site-wide groundwater remedy investigation activities at the Facility are being conducted to satisfy the requirements outlined in the following USEPA decision documents:

- The Statement of Basis (SB) issued on November 5, 2003;
- The Final Decision and Response to Comments (FDRTC) issued on March 31, 2004 and;
- The RCRA Section 3008(h) Corrective Measures Implementation (CMI) Final Administrative Order on Consent, effective August 18, 2006.

The USEPA decision documents provided the following three-phased approach for the groundwater remedy at the Facility:

Phase One: *Source removal of impacted soils/sediments/sludges and NAPL in a manner consistent with the Virginia Department of Environmental Quality (VDEQ) Aboveground Storage Tank (AST) program and EPA’s Corrective Action program, additional delineation of source areas, and plume monitoring;*

Phase Two: *Continued delineation of Non Aqueous Phase Liquid (NAPL) and associated contaminant plumes, and migration control measures; and*

Phase Three: *Reassess plume characteristics after source removal and capping measures have been completed, and implementation of corrective measures to meet groundwater cleanup standards based on drinking water exposure, as identified in Table 2b of the SB.*

*Phase One* work elements were conducted at the Facility during two separate source removal phases. The first phase of source removal construction activities were conducted at the Facility from July 2007 to April 2008. The second phase of source removal construction activities were conducted at the Facility from July 2010 to September 2011.

The first and second phase source removal activities consisted of removing impacted soil and sludge from various Solid Waste Management Units (SWMUs) and sections of the Oily Water Sewer (OWS), and consolidating them into two encapsulated Corrective Action Management Units (CAMUs East and West) located at the eastern portion of the Facility.

Results of the first phase of source removal construction activities were described and documented in the Phase I CMI Report (ENSR, July 2008). Results of the second phase of source removal construction activities were described and documented in the Phase II CMI Report (Opal, June 2013).

*Phase Two* work elements were conducted at the Facility in 2007 as part of the Supplemental Investigation (SI) activities. A significant amount of work was completed during the SI activities to obtain a better understanding of groundwater flow across the site, better characterize the source and extent of NAPL in known and unknown areas, and complete delineation of groundwater impacts in both NAPL and non-NAPL areas. This work included but was not limited to installing and sampling approximately 100 temporary ¾- to 1-inch temporary monitor wells. Results of the SI activities were described and documented in the SI Report (ENSR, 2007).

*Phase Three* work elements are ongoing and were initiated at the Facility in 2012 as part of the site-wide groundwater reassessment investigation. The site-wide groundwater reassessment investigation was conducted to obtain current groundwater conditions and reassess plume characteristics after the first and second phase of source removal and capping measures were complete. This work included an updated monitoring well inventory, abandonment of 59 monitoring wells, groundwater sampling (2 events) of site-wide monitoring wells, installation of 19 additional monitoring wells, and soil sampling of hot spot areas. Results of the site-wide groundwater reassessment investigation along with a proposed interim and final groundwater remedy for the Facility were presented to the USEPA in a Final Site-Wide Groundwater Reassessment Report (Opal, 2013).

The Facility monitoring wells are shown on Figure 1. The well locations are color-coded, indicating the regulatory program associated with each monitoring well. This figure also indicates the approximate boundaries of the SWMUs, CAMU East, CAMU West, and the OWS that was cleaned, inspected, and repaired during the Phase II CMI construction activities.

## **2.0 Scope of Work - Interim Site-Wide Groundwater Remedy**

The scope of work described in the following sections is based on the interim site-wide groundwater remedy proposed to the USEPA in Section 5.0 of the Final Site-Wide Groundwater Reassessment Report (Opal, 2013). The interim site-wide groundwater remedy proposed for the Facility consists of:

- ongoing recovery of NAPL;
- additional data collection of semi-annual groundwater samples from a network of selected monitoring wells for a period of two years; and,
- additional investigation and removal of hot spot areas.

The data collected from the interim remedy activities listed above will be used to support the final groundwater remedy for the Facility which was proposed in Section 6.0 of the Final Site-Wide Groundwater Reassessment Report (Opal, 2013). The final site-wide groundwater remedy proposed for the Facility consists of long term MNA to confirm that the concentrations of dissolved contaminants in groundwater are reducing and not migrating off site.

Table 1, "Interim Groundwater Remedy Implementation and Reporting Schedule" summarizes the proposed implementation and reporting schedule for the interim groundwater remedy action items which are described in the following sections.

### **2.1 Ongoing NAPL Recovery**

All of the monitoring wells at the Facility were gauged for depth to water and NAPL in December 2012 and July 2013 as part of the site-wide groundwater reassessment investigation. Results from these gauging events showed measurable dense non aqueous phase liquids (DNAPL) in four monitoring wells, CQ2108, RCU01, RCU02, and RFI1. These wells are all located in the AOC1/Coker area.

Approximately one foot of light non aqueous phase liquids (LNAPL) was detected in monitoring well CMI9 during the July 2013 gauging event. Monitoring well CMI9 is located adjacent to Tank 26 and was installed in June 2013 to assess dissolved and separate phase hydrocarbons down gradient of monitor wells NW9 and CW112. The monitoring wells containing NAPL are shown on Figure 1. The July 2013 groundwater potentiometric contours for the Columbia Aquifer (wells screened to a maximum of 18 feet deep) are also shown on Figure 1.

NAPL recovery from monitoring wells CQ2108, RCU01, RCU02, RFI1, and CMI9 is presently being conducted on a monthly basis by Environmental Alliance (EA) under the Virginia Department of Environmental Quality (VDEQ) AST groundwater program. Results of the NAPL gauging and recovery activities will continue to be provided to the USEPA in the quarterly CMI progress reports. As described in Section 2.3 of this Work Plan, Plains

intends to pursue a more aggressive approach to NAPL removal at the AOC1/Coker and Tank 26 areas with additional investigation and excavation activities.

## **2.2 Additional Data Collection – Semi-annual Groundwater Sampling**

Results of the site-wide groundwater reassessment investigation showed the highest magnitude and frequency of contaminant exceedances were detected at the four areas listed below:

- 1) AOC1/Coker Area located at the northwest portion of the Facility along Ave C between 7<sup>th</sup> and 9<sup>th</sup> Street;
- 2) Combo Unit Area located at the northwest portion of the Facility east of 7<sup>th</sup> Street between Ave D and Ave C;
- 3) Tank 600 Area, located at the central portion of the Facility between Ave C and Ave B, and between 4<sup>th</sup> St and 3<sup>rd</sup> St;
- 4) Tank 26 Area located at northeast portion of the Facility between Dock Rd and the Settling Basin.

Additionally, NAPL was detected in monitoring wells located in the AOC1/Coker and Tank 26 areas. The locations of the four areas listed above are shown on Figure 1.

With the exception of the Combo area, historical sampling data appears to support MNA as a viable remedy in these areas as described in the Final Site-wide Groundwater Reassessment Report (Opal, 2013). However, prior to the site-wide groundwater reassessment investigation, the majority of the historical sampling data was obtained from the annual groundwater sampling events conducted under the VDEQ AST program and not as a comprehensive monitoring program for these areas and Facility as a whole.

Accordingly, in order to establish a consistent data trend and support MNA as a viable remedy for site-wide groundwater at the Facility, Plains intends to conduct two years of semi-annual groundwater sampling from a network of monitoring wells which target the above-listed areas. The selected monitoring well networks for each area are shown on Figure 1 and were selected to evaluate groundwater downgradient, upgradient, and within the areas showing the of highest magnitude and frequency of contaminant exceedances and/or NAPL . The analytical parameters for each monitoring well network are summarized in Table 2, "Monitoring Well Network Analytical Parameters by Area". The laboratory methods and reporting limits for each parameter are summarized in Table 3 "Semi-annual Groundwater Sampling Analytical Methods and Reporting Limits".

Rather than hand bailing (method used for annual AST sampling), the sampling methods used to collect these semi-annual groundwater samples will be consistent with the low flow groundwater sampling described in SOP 235 "Low Flow Groundwater Sampling," which provides a more representative sample of the groundwater and is consistent with the protocols employed for the CMI CAMU groundwater sampling program. SOP 235 was

provided with the Site-wide Groundwater Reassessment Work Plan (Opal, 2012) and was the method used to collect groundwater samples during both the December 2012/January 2013 and July 2013 site-wide sample events.

### **2.2.1 AOC1/Coker Area**

The AOC1/Coker area is located at the northwest portion of the Facility, and the former operating unit is presently undergoing dismantling, projected to be complete in July 2015. Results of the site-wide groundwater reassessment conducted at the Facility during 2012 and 2013 showed both NAPL and elevated concentrations of dissolved hydrocarbons within the AOC1/Coker area as shown on Figure 2 “Site-wide Groundwater Reassessment Results – AOC1/Coker Area”. Groundwater impacts above regulatory limits include benzene, arsenic, 1-methylnaphthalene, and naphthalene.

A network of eight monitoring wells has been selected for this area to be sampled on a semi-annual basis for two years. These monitoring wells are shown on Figure 1 and include CMI16, CQ2118, I11, LD300, LD301, LD701, LD702R, and LD900R. The analytical parameters for semi-annual sampling of the AOC1/Coker monitoring well network are listed on Table 2.

The four monitoring wells in the AOC1/Coker area that contain NAPL, CQ2108, RCU01, RCU02, and RFI1, will be added to the network and sampled if NAPL is not detected prior to each semi-annual sampling event.

### **2.2.2 Combo Area**

The Combo area is located directly east of the AOC1/Coker area, and the former refinery equipment in this area is also presently undergoing dismantling. Results of the site-wide groundwater reassessment conducted at the Facility showed elevated concentrations of dissolved hydrocarbons within the Combo area as shown on Figure 3 “Site-wide Groundwater Reassessment Results – Combo Area”. Groundwater impacts above regulatory limits include benzene, methyl tert-butyl ether (MTBE), arsenic, 1-methylnaphthalene, and naphthalene.

A network of eight monitoring wells has been selected for this area to be sampled on a semi-annual basis for two years. These wells are shown on Figure 1 and consist of CMI18, CQ2208, I15A, I16, I17, I19B, I28, and LD6thSt.

The analytical parameters for semi-annual sampling of the Combo area monitoring well network are listed on Table 2. This data will be used to determine if MNA is a viable remedy for groundwater in the Combo area based on the trend data observed for these analytes. Once dismantling activities and semi-annual sampling of the selected monitoring wells in the Combo area is complete, Plains will evaluate if additional characterization and/or source removal is required for this area.

### **2.2.3 Tank 26 Area**

The Tank 26 area is located at the northeast portion of the Facility between Dock Road and the Settling Basin. Results of the site-wide groundwater reassessment conducted at the Facility during 2012 and 2013 showed both NAPL and elevated concentrations of dissolved hydrocarbons within the Tank 26 area as shown on Figure 4 “Site-wide Groundwater Reassessment Results – Tank 26 Area”. Groundwater impacts above regulatory limits include benzene, arsenic, 1-methylnaphthalene, and naphthalene.

A network of four monitoring wells has been selected for this area to be sampled on a semi-annual basis for two years. These monitoring wells are shown on Figure 1 and consist of CMI8, CW112, NW9, and RFI4. The analytical parameters for semi-annual sampling of the Tank 26 area monitoring well network are listed on Table 2.

The one monitoring well in the Tank 26 area that contains NAPL, CMI9, will be added to the network and sampled if NAPL is not detected prior to each semi-annual sampling event.

### **2.2.4 Tank 600 Series Area**

The Tank 600 area is located in the central portion of the Facility between Ave C and Ave B. For purposes of this report, the Tank 600 area is defined as Tanks 612, 613, 614, 608, 609, and 610. Results of the site-wide groundwater reassessment conducted at the Facility showed elevated concentrations of dissolved hydrocarbons within the Tank 600 area as shown on Figure 5 “Site-wide Groundwater Reassessment Results – Tank 600 Area”. Groundwater impacts above regulatory limits include benzene, ethylbenzene, MTBE, arsenic, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene.

A network of 15 monitoring wells has been selected for this area to be sampled on a semi-annual basis for two years. These monitoring wells are shown on Figure 1 and consist of B07, CMI10, I23, LD4th&B, LD608, LD608R, LD609, LD609A, LD610, LD610R, LD612R, LD613R, LD614A, LD614R, and RFI12. The analytical parameters for semi-annual sampling of the Tank 600 area monitoring well network are listed on Table 2.

As described in Section 2.3 of this work plan, Plains intends to conduct additional excavation and source removal activities at the Tank 610 area as part of the interim site-wide groundwater remedy.

### **2.2.5 SWMUs 5N and 7 Areas**

SWMU 5N and SWMU 7 are located at the eastern portion of the Facility east of 1st Street. Approximately 91,000 cyds of impacted soils, sludge, and sediments were removed from SWMU 5N and SWMU 7 during the 2010 thru 2011 Phase II CMI activities and placed into CAMU West. Four monitoring wells, CMI4, CMI5, CMI6, and CMI7, were installed and sampled in the SWMU 5N and SWMU 7 areas as part of the site-wide groundwater reassessment investigation. Results of the site-wide groundwater reassessment showed two Constituents of Concern (COCs) exceeded the SB media cleanup requirements

(MCRs) for groundwater in two of the four wells. These analytes included benzene in CMI6 (10 ug/l) and arsenic in CMI4 (14 ug/l) as shown in Figure 6 “Site-wide Groundwater Reassessment Results – SWMU 5N and 7 Areas. Additionally, some semi-volatile organic compounds (SVOCs) were detected above the USEPA risk based concentrations (RBCs) in CMI4 and CMI5 (Naphthalene and 1-Methylnaphthalene) and CMI6 (1-Methylnaphthalene).

A network of four wells, CMI4, CMI5, CMI6, and CMI7, will be sampled on a semi-annual basis for two years to facilitate an understanding of the potential changes to groundwater flow conditions due to source removal as well as the placement of soil in the newly-constructed SWMU 5/7 soil management area to an elevation of more than 15 feet above the surrounding ground surface. In addition to the depth to ground water and its flow gradient, the evaluation will include plume stability by observing changes in concentrations of COCs, analysis of potential migration of COCs, and assessment of MNA as a viable groundwater remedy for this area. The analytical parameters for semi-annual sampling of the SWMU 5N and 7 area monitoring well network are listed on Table 2.

#### **2.2.6 Facility Perimeter and Positive Environmental Indicator**

A positive groundwater environmental indicator (EI) was signed by the USEPA September 21, 2007. Results of the site-wide groundwater reassessment investigation showed the overall positive EI for the Facility has been maintained.

In order to monitor the overall positive EI for the Facility, a network of 12 wells has been selected along the Facility perimeter to be sampled on a semi-annual basis for two years. These monitoring wells are shown on Figure 1 and consist of B20, B24, CMI1, CMI2, D01A, I25, LDAVEA, RFI1014, RFI1414, RFI1614, RFI6, and RFI8. The analytical parameters for semi-annual sampling of the perimeter well network are listed on Table 2.

### **2.3 Additional Investigation and/or Removal of Hot Spot Ares**

The following sections describe the scope of work to complete additional investigation and/or removal of hot spot areas as part of the interim remedy for site-wide groundwater at the Facility. As outlined in the Final Site-wide Groundwater Reassessment Report (Opal, 2013), these additional investigation and source removal activities will be conducted at the AOC1/Coker, Tank 26, Tank 600 Series, and Tank 203 areas. The methods and procedures to conduct this additional investigation and source removal work are described in Section 3.0 of this work plan.

#### **2.3.1 AOC1/Coker Area**

Figure 7 “Additional Investigation Plan – AOC1/Coker Area” shows the proposed locations for the installation of hand auger borings and/or test pits within the AOC1/Coker area. The purpose of these test pits and/or hand auger borings is to determine if NAPL impacted source material is present as an ongoing source to the NAPL detected in several monitor wells in the AOC1/Coker area. Some source removal was conducted at the AOC1/Coker



area during the Phase II CMI activities in 2011, consisting of the excavation of approximately 1,198 cy of impacted materials from AOC1. However,, the majority of this area was not accessible for investigation and/or source removal due to the above ground process units and piping remaining from the former refinery which was idled in 2010.

As discussed in the Final Site-wide Groundwater Reassessment Report (Opal, 2013), Plains began dismantling of the process units in the AOC1/Coker area in July 2013. The dismantling activities are scheduled to be complete by July 2015; however, as of June 2014, several locations within the AOC1/Coker area are now clear enough to allow safe access for some low profile exploratory subsurface investigation activities (e.g. Hand auger borings and/or mini excavator).

In August/September 2014, Plains intends to initiate additional subsurface investigation activities at the AOC1/Coker area by conducting the following field activities in the sequence below:

- 1) Survey final locations in the field and get final approval from Plains personnel prior to conducting subsurface exploratory borings and/or test pits. Locations of proposed borings and/or test pits may be adjusted or added in the field in order to:
  - i) Avoid an area of underground or overhead utilities;
  - ii) Avoid a conflict with dismantling contractor who may be operating in close proximity to boring location;
  - iii) Target an area where visual observation of a seep or stained material is observed on ground surface;
- 2) Advance hand auger boring to groundwater table (approximately 3-4 feet below ground surface).
- 3) Log and photograph material from boring and note any odors and/or visually stained NAPL impacted material. No soil samples will be collected for laboratory analyses.
- 4) If visually stained NAPL-impacted material and/or strong odors and staining at the water table is observed in the hand auger boring, the location will be designated for excavation of a test pit.
- 5) A mini-excavator will be used to excavate test pits at the designated hand auger boring locations. The test pits will be excavated to approximately 3 foot square by 3 to 4 feet deep (to water table). The test pit will remain open until it can be observed if NAPL is entering into the test pit with the water table.
- 6) Log and photograph results of test pits, including if NAPL-stained material appears to extend deeper than the water table.
- 7) Material from the test pits and hand auger borings will be placed into lined roll off containers and profiled for off-site disposal. The open test pit will then be backfilled with clean fill obtained from the SWMU 5/7 soil management area.

Results of the additional subsurface investigation activities in the AOC1/Coker area will be presented to the USEPA in the Quarterly CMI progress reports. A work plan and proposed

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schedule for additional source removal at the AOC1/Coker area, if warranted, will be submitted within 90 days after the additional subsurface investigation activities are complete.

### **2.3.2 Tank 26 Area**

Figure 8 “Excavation and Hot Spot Area Removal Plan – Tank 26 Area” shows the proposed excavation area for removal of NAPL impacted source material observed adjacent to Tank 26 during the installation of monitor well CMI9.

In June 2013, monitoring well CMI9 was installed immediately northwest of Tank 26 as part of the site-wide groundwater reassessment investigation. This well was installed to further define dissolve phase and NAPL impacts in groundwater, downgradient of monitor wells CW112 and NW9. Visually stained and odorous soils were observed at approximately three to seven feet below ground surface during installation of CMI9. Additionally, approximately eight inches of LNAPL was observed in CMI9 during well development and gauging activities.

To determine if these impacted soils and LNAPL were limited to the area of CMI9 and from historical overspills from Tank 26, Opal personnel advanced eight hand auger borings near CMI9 and the perimeter of the tank. Results of the hand borings showed impacted soils at approximately four feet bgs which appeared to be limited to the immediate perimeter of Tank 26 (within 10 feet from the edge of Tank 26).

In August/September 2014, Plains intends to initiate excavation and removal of NAPL-impacted material at the area of CMI9 and Tank 26 by conducting the following field activities in the general sequence listed below and as shown on Figure 8:

- 1) A VA-licensed well driller will abandon monitor well CMI9 per the well abandonment procedures described in Section 3 of this work plan;
  - 2) Clear all underground utilities within the proposed excavation area with Plains personnel;
  - 3) Construct a decon pad for haul trucks and equipment entering into and out of the immediate excavation area;
  - 4) Excavate the area shown as Cell 1 on Figure 8. Each cell will be approximately ten feet wide by ten feet long and approximately seven feet below ground surface (depth to groundwater).
  - 5) Material will be directly loaded into lined or roll-off boxes for off-site disposal to Clearfield Landfill in Chesapeake, VA.
  - 6) The excavated Cell area will be photographed and logged for visual impacts or NAPL entering into the excavation with groundwater.
  - 7) The excavated Cell area will be backfilled and compacted with clean fill obtained from the SWMU 5/7 soil management area. Prior to backfilling, groundwater that entered into the excavation will be pumped into a vacuum truck or frac tank for off-site disposal at the Potomac Environmental Incorporated (PEI) Clearfield landfill in Chesapeake, VA.
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- 8) Excavation and backfill will proceed on a cell-by-cell basis as shown on Figure 8 until NAPL-impacted material is not observed in the sidewalls or excavation has continued to the extent practicable (e.g. excavation will not occur beneath the foundation of Tank 26).

Although the approximate dimensions of the cells are shown on Figure 8 (10' x 10' x 7'), the actual size of each cell may vary on a day-to-day basis depending the material encountered and accessibility by haul trucks which may be restricted by incoming unit train schedules. The overall intent of excavating on a cell-by-cell basis is to:

- Excavate only an area which can be backfilled on the same day;
- Limit the potential of compromising the existing structure of Tank 26, and;
- Minimize the management and production of groundwater and/or rainwater.

Results of the excavation and removal of the hot spot area at the Tank 26 area will be reported to the USEPA in the Quarterly CMI progress reports.

### **2.3.3 Tank 600 Series Area**

Figure 9 "Excavation and Source Removal Plan – Tank 610 Area" shows the proposed excavation area for removal of impacted source material in the southeast quadrant of the Tank 610 bermed area.

During the site-wide groundwater reassessment investigation, four samples were collected from the southeast quadrant within the Tank 610 berm area and analyzed for the SWMU 8 parameters listed in Table 2a of the SB. These samples were collected to confirm the current status of historical soil impacts that were originally proposed for further investigation and/or excavation in Action Item #5 of the SI Report (Retec, 2007). As shown on Figure 9, all four samples showed several parameters exceeding the soil MCRs listed for SWMU 8 in Table 2a of the SB. Notably, all four samples showed benzene concentrations above the SB MCR of eight micrograms per kilogram (ug/kg) and ranged from 460 ug/kg in TK610-1 to 38,000 ug/kg in TK610-2.

In August/September 2014, Plains intends to initiate excavation and removal of the impacted material within the southeast quadrant of the Tank 610 area by conducting the same cell-by-cell excavation and backfill approach described for the Tank 26 area (see Section 2.3.2). As shown on Figure 9, the area to be excavated in the Tank 610 southeast quadrant is approximately 4,580 square feet and will be excavated to an approximate depth of three feet below ground surface (depth to groundwater).

Results of the excavation and removal of the hot spot area at the Tank 610 area will be reported to the USEPA in the Quarterly CMI progress reports.

### **2.3.4 Tank 203 Area**

Figure 10 "Excavation and Source Removal Plan – Tank 203 Area" shows the proposed excavation area for removal of impacted source material east of Tank 203. The Tank 203

area was not included in the overall site-wide groundwater remedy since arsenic was the only COC detected above SB MCRs in two of the four monitoring wells sampled during the site-wide groundwater reassessment activities. However, during the site-wide groundwater reassessment investigation, four soil samples were collected from two feet bgs in the area east of Tank 203. These samples were collected to confirm the current status of historical soil impacts that were originally proposed for further investigation and/or excavation in Action Item #3 of the SI Report (Retec, 2007). As shown on Figure 10, one soil sample (Tank 203-middle) exceeded the VDEQ saturation threshold value of 11,000 mg/kg for TPH-DRO. Arsenic was also detected in this sample above the SB risk-based remediation goal (RBRG) value of 3.87 mg/kg.

In August/September 2014, Plains intends to excavate and remove the soils in the immediate area of the Tank 203-middle sample. As shown on Figure 10, an area of approximately four feet x four feet will be excavated to two feet below ground surface. Approximately one cy of material will be generated from this excavation which will be loaded directly into a lined haul truck or roll-off box for off-site disposal. The excavation will then be backfilled with clean fill obtained from the SWMU 5/7 soil management area.

Results of the excavation and removal of the hot spot area at the Tank 203 area will be reported to the USEPA in the Quarterly CMI progress reports.